

## PRESSURE REDUCING VALVES – QUESTIONS AND ANSWERS

**What is a pressure reducing valve?** Also called a water pressure regulator, they are compact, inexpensive devices that perform two functions: (1) they automatically reduce the high incoming water pressure from the city main lines to provide a lower, more functional pressure for distribution in the home; (2) they “regulate” by maintaining a set pressure in the home usually 50 psi –thereby insuring that the home piping and appliances operate under a safe, and more moderate pressure.

**What is water pressure?** When a fixture in a home is opened and water flows from it, it is because the water is “pushed.” This “push” is pressure. The speed at which water flows from the opened outlet depends on the amount of “push” or pressure which exists at that time in the system. In short, the higher the pressure, the stronger the “push” behind the water.

**What is wrong with high water pressure?** High water pressure, which is generally considered anything above 60 lbs., has some advantage, such as in firefighting systems. However, in the home plumbing system, it can be damaging because water, with a strong “push” behind it, can erode or wear away many materials and cause water heaters to leak, banging water pipes, dripping faucets, excessive dishwasher and clothes washer noise and breakdown, and leaking water pipes.

**How do I know if I have high water pressure?** A rule of thumb is: If you hear banging pipes in your home or observe water splashing in your sink, you probably have excessive pressure. As the City of Asheville is in the mountains, our system pressure is much higher than what is found in flatter areas. Our average water pressure is 150 psi, and in some locations, can be over 200 psi. For a precise reading of your pressure, please contact a local plumbing contractor or request a pressure check through our Customer Services Division at 251-1122.

**What does a Water Pressure Reducing Valve cost?** There are, of course, different styles of regulators and various installation charges throughout the country. An estimate can be obtained from your local qualified plumbing contractor.

**How can I get a Water Pressure Reducing Valve installed?** The easiest way would be to call your local qualified plumbing contractor who can provide you with an estimate and also advise of the various type regulators available and the one best suited for your home.

**Where are Water Pressure Reducing Valves most commonly used?** Pressure Reducing Valves are commonly installed at the meter (on the customer’s side of the meter) in residential, commercial and industrial buildings. This location is desirable because it then controls the water pressure flowing to all appliances and outlets within the building and provides an inexpensive means of supplying lower, more functional water pressure to outlets and appliances.

**Are there other advantages to using Pressure Reducing Valves?** Yes, with their use, ½ less water flows at 50 psi than at 100 psi. Therefore, when you reduce the city main pressure to a more moderate pressure of 50 psi, you can look forward to conserving up to 1/3, or more, of the water previously consumed. This will save you money on your water bill, and as 1/3 less water will go into the sewer system, it will also save you money on your sewer bill. It also saves on energy bills. The Environmental Protection Agency estimates that 30% of the water used in households is heated. Logically, if a Pressure Reducing Valve reduces consumption by 1/3, we automatically cut down on the amount of hot water we’re using in lavatories and showers, it follows that we automatically reduce the amount of energy required to heat that load. The Pressure Reducing Valve helps us conserve one of the most precious commodities, which is water. They are simple inexpensive products that have a pay-back period of anywhere from 6 months to 12 months, and can save between 30,000 and 40,000-gallons of water per year in the average home alone.